

REMARKS

The September 21, 2006 Office Action regarding the above-identified application has been carefully considered; and the claim amendments above together with the remarks that follow are presented in a bona fide effort to respond thereto and address all issues raised in that Action. The claims have been amended so that the independent claims indicate that processing involved in generating and/or recording of thumbnail data is selected or changed based on a determination of the type of the optical disk recording medium. The independent apparatus claims also have been revised to eliminate “means” phrasing and avoid a possible interpretation thereof under the sixth paragraph of 35 U.S.C. § 112.

In revising the claims, care has been taken to avoid entry of new matter. Support for the claim language regarding control of processing involved in generating and recording of thumbnail data, based on a determination of the type of the optical disk recording medium, should be apparent from the drawings and original description. For example, application FIG. 6 shows a determination of disk type in step S601. Processing branches based on disk type at step S605; and processing branches based on disk type at step S608. Attention also is directed to the description of the process flow running from the last line of page 14 to line 5 of page 16, of Applicant’s specification. The processing S606 for the rewritable type disk is shown in FIG. 7. The processing S607 for the write-once type disk is shown in FIG. 8; and the processing S609 for finalizing the write-once type disk is shown in FIG. 9. Original claims 4 and 10 included broad recitations regarding determining disk type and changing processing. Hence, the amended claims should find ample written descriptive support in the original description, claims and drawings.

For reasons discussed below, it is believed that this case is in condition for allowance. Prompt favorable reconsideration of this amended application is requested.

The only issue raised in the September 21, 2006 Office Action related to patentability of original claims 1-12 over art. In that regard, the Detailed Action set forth a rejection of claims 1-12 under 35 U.S.C. §103 as unpatentable over U.S. Patent No. 6,701,063 to Komoda et al. (hereinafter Komoda) in combination with U.S. Patent No. 6,553,180 to Kikuchi et al. (hereinafter Kikuchi). Applicant respectfully traverses this rejection. It is submitted that the applied documents would not teach one of skill in the art to control processing with regard to the thumbnail data based on determination of the type of the optical disk recording medium, to the different degrees of claim scope now recited in Applicant's different independent claims (1, 4, 7 and 10).

Claim 1 relates to an optical disk recording apparatus. The apparatus includes a recording module and a module that generates thumbnail data of a particular image associated with each partial image recording section. Claim 1 has been amended to further recite a module to determine a type of the optical disk medium and to change the processing to generate and to record thumbnail data in association with the recording of the image, in accordance with the determined type of optical disk medium. Neither Komoda nor Kikuchi teaches controlling processing with regard to thumbnail data, in accordance with the determined type of optical disk medium. Hence, any apparatus that might be constructed from the proposed combination of Komoda and Kikuchi would lack the module now recited in the last paragraph of claim 1.

Komoda discloses a technique for recording data on a DVD type optical disk in a manner that facilitates playback in a DVD compatible player, in a situation where the recorded information may not be in the standard DVD format. Attention, for example, may be directed to the abstract and to the description in lines 44-51 of the Komoda patent. Reference information is recorded in a file on the optical disc, which is managed by a directory under the DVD video

standard. By this method, a file controlled by a directory outside the video standard can be accessed in conformity with the video standard. Video data that was encoded by a video standard, such as DVD, and data encoded by a different method is recorded on the optical disc. As such, Komoda handles different types of data, but Komoda does not determine the type of disk and does not control thumbnail data generation or recording based on determined type of disk medium.

The rejection cited Kikuchi for a teaching of recording thumbnail data of a plurality of images as a string of data, in a digital recording and playback system. Kikuchi does describe how disk type information is recorded on the disk. Kikuchi only teaches generating a menu in accordance with details of the contents. The Kikuchi patent does not suggest changing the methodology in accordance with detection of various kinds of optical disk media.

Hence, neither applied patent discloses or teaches a module to determine a type of optical disk medium and to change the processing to generate and to record thumbnail data in association with the recording of the image, in accordance with the determined type of optical disk medium, as recited in amended claim 1. The combination of patents proposed in the art rejection therefore would not include the recited module and would not satisfy all of the recitations of claim 1. Hence claim 1 (and dependent claims 2 and 3) should be patentable over the proposed combination of Komoda and Kikuchi.

The apparatus of claim 4 includes a module to determine a type of optical disk medium and to change the processing to generate and to record thumbnail data in association with the recording of the image in accordance with the determined type of optical disk medium. It is not seen where either of the applied patents to Komoda and Kikuchi suggests determining disk type and the attendant changing of processing for generating and recording thumbnail data, based on

determined disk type. The rejection of claim 4 cited Komodo for changing processing in association with different formats of data. The rejection cited Kikuchi for an alleged teaching to detect disk type. However, it is not seen where either document suggests use of the disk type determination to change the processing with regard to generating and recording of thumbnail data. The combination of patents proposed in the art rejection therefore would not include the recited module and would not satisfy all of the recitations of claim 4. Hence, independent claim 4 (and dependent claims 5 and 6) should be patentable over the proposed combination of Komoda and Kikuchi.

Claim 7 relates to an optical disk recording method, which includes a step of determining a type of an optical disk medium from among a plurality of types of optical disk media. The recited method also includes a step of recording the thumbnail data of a plurality of images in the form of a string of data on the optical disk medium. At least some of the processing associated with the generating and/or recording of the thumbnail data involves a process selected from among a plurality of different processes, and the selection is responsive to the determined type of optical disk medium. It is respectfully submitted that Komoda and Kikuchi would not lead one of skill in the art to a recording method that includes such steps.

As noted above, Komoda teaches handling standard and non-standard data on a DVD type optical disk in a manner that facilitates playback in a DVD compatible player. Although Komoda handles different types of data, Komoda does not determine the type of disk or control thumbnail data generation or recording based on determined type of disk medium. Kikuchi only teaches disk type data on the disk and generating a menu in accordance with details of the contents. The Kikuchi patent does not suggest changing the methodology in accordance with detection of various kinds of optical disk media. Hence, any disk recording methodology that

might arise from the proposed combination of Komoda and Kikuchi would not select the process for the generating and/or recording of the thumbnail data from among a plurality of different processes, based on the determined type of optical disk medium, as in claim 7. The combination therefore does not satisfy all requirements of claim 7, therefore independent claim 7 (and dependent claims 8 and 9) should be patentable over the proposed combination of Komoda and Kikuchi.

The method of claim 10 includes a step of determining a type of each optical disk medium and a related step of changing processing to generate and to record thumbnail data in association with the recording of the image on the optical disk media in accordance with the determined type of optical disk medium. As noted above, neither Komoda nor Kikuchi discloses or suggests controlling generating or recording of thumbnail data processing in accordance with the determined type of optical disk medium. The combination proposed in the art rejection therefore does not satisfy the requirement recited in the last paragraph of claim 10, therefore independent claim 10 (and dependent claims 11 and 12) should be patentable over the proposed combination of Komoda and Kikuchi.

For the reasons explained above, the applied art does not satisfy the requirements of the pending claims. Hence the pending claims patentably define over the art, and the art rejection should be withdrawn.


Upon entry of the above claim amendments, claims 1-12 remain active in this application, all of which should be patentable over the art applied in the Action. Applicant therefore submits that all of the claims are in condition for allowance. Accordingly, this case should now be ready to pass to issue; and Applicant respectfully requests a prompt favorable reconsideration of this matter.

It is believed that this response addresses all issues raised in the September 21, 2006 Office Action. However, if any further issue should arise that may be addressed in an interview or by an Examiner's amendment, it is requested that the Examiner telephone Applicant's representative at the number shown below.

To the extent necessary, if any, a petition for an extension of time under 37 C.F.R. § 1.136 is hereby made. Please charge any shortage in fees due in connection with the filing of this paper, including extension of time fees, to Deposit Account 500417 and please credit any excess fees to such deposit account.

Respectfully submitted,

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A handwritten signature in black ink, appearing to read "Keith E. George", is written over the printed name.

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